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The First Anniversary of the Dionne Quintuplets

MAY 28, 1935, is a notable date in history. Never before has there been an authenticated report of quintuplets all surviving to celebrate, with a world of well wishers, their first anniversary. The Dionne quintuplets are the first to have accomplished this feat. For this gratifying result we may thank Dr. Dafoe whose great care and skill, assisted by all the expedients of modern medical science, have made this joint survival possible.

In surviving together to age one, this group of five baby girls has successfully overcome risks equivalent to those that one female individual meets in the course of her first 51 years of life. This statement is based on the most recent life table representing current American mortality conditions, according to which the probability of *one* girl baby surviving to age one is a little over 95 percent. The probability of *five* such babies all surviving to age one is the fifth power of this figure, that is, 78 percent. The same life table shows that the probability of one female newborn baby surviving to age 51 is 78 percent. Thus, even if we assume as favorable mortality for quintuplets as for the average American child, we reach the conclusion stated above, that in the first year of their life they have withstood the degree of life risk ordinarily met with by one female individual in the first 51 years of her life. Actually, these babies were prematurely born, and this without doubt greatly increased their risk of dying in the first few days and certainly in their first year. When we consider in addition the fact that multiple births always represent a very serious handicap, we cannot praise too highly the skill of the physician and his staff, whose unflagging efforts have preserved these remarkable children and brought them to their present state of robust babyhood.

As the result of this achievement, any one of these children considered separately has now an expectation of life of 65 years. If we ask how long they may all as a group expect to live together, the answer, computed from the life table, is, naturally, a smaller number, namely 39 years. This is an average figure. Actually they may well do better than that, for they seem to be in splendid health, and, as wards of

the King, will continue to receive excellent care.

While the expectation of life of the five as a group necessarily is less than that of any one of them separately, on the other hand, the longest lived of the five, whoever she may be, has a greater expectation of life than any random one of them. Her expectation is 83 years.

All these figures are based on averages, and actually the children may do better than stated above. One fact which it is not possible to take into account in the computation is that the children are of the "identical" kind of multiple births, and therefore they probably have very closely similar predispositions, such as would tend, barring accidents, to make them all survive to about the same age. This, we have every reason to hope, may be an advanced age, to judge from their present robust health and the special provisions taken for their welfare.

Progress in Insulin Therapy

STEADY and measurable advance is being made in the treatment of diabetes. This definite conclusion is drawn from the preliminary results of a study conducted by the Metropolitan Life Insurance Company and based on inquiries sent out to physicians who had attended diabetic policyholders. It was undertaken because the mortality from diabetes still remains at a seriously high level. The purpose was to elicit certain vital facts on the extent to which insulin is being used by diabetics and the degree of regularity of such use, on the reasons why some patients actually are not using it, and on the causes of death to which diabetics finally succumb—especially on the frequency of fatal diabetic coma. The group of policyholders studied is fairly representative of the diabetic population at large. Similar studies made by the Company in the past afford a basis of comparison by which to ascertain what changes of importance have taken place in the course of the last eleven years.

The present study shows that more diabetics than ever before receive insulin at some time during their illness, and also that an increasing proportion of diabetics use it regularly at least during some period in the course of their illness. Thus, 72 percent of the cases in the present series, whose diabetes was diagnosed before the fatal illness, had received some insulin treatment, whereas in the 1929 survey, its use was reported in 64 percent of the cases, and in 1924, in only 49 percent. Included in these figures are cases in which the only recorded use of insulin was during the final illness. These cases accounted for only 11 percent in the present series, as compared with 30 percent in the 1929 series. Even more reassuring are the figures regarding the proportion that received insulin before their final illness. These cases numbered 59 percent of the recent group, as compared

with only 34 percent in 1929. Regular use of insulin was reported for 31 percent of the recently deceased diabetics, and an almost equal number had used it at intervals during their illness. Earlier data on this point are not available.

The reasons why some of these policyholders did not use insulin are extremely instructive. The one most frequently given is that dietary restriction had sufficed to keep the disease under control. This was reported for 70 percent of 254 diabetics who had not received insulin at all or who received it only in their terminal illness. Next in importance was the reported objection of the patient or his family to insulin. This happened in 44 percent of these 254 cases, including some of the 70 percent already mentioned. The only other reason given with any frequency was that patients could not afford insulin. Among 177 diabetics who used insulin only irregularly, somewhat the same situation prevailed. Thus, in slightly over half of this group it was reported that the diabetes was controlled by diet. Nearly half had discontinued insulin because they or their families objected to its use. The cost of insulin deterred about one seventh from taking it regularly.

An encouraging aspect of the present treatment of diabetes is the continuous decrease in the incidence of coma. Among the recent deaths, diabetic coma, either primary or secondary, occurred in the final illness of 29 percent. In contrast, coma occurred in the final illness of 38 percent of the 1929 group, and in 48 percent of the 1924 group. The incidence of diabetic coma in fatal cases, therefore, has fallen 25 percent within six years, and no less than 40 percent within eleven years. It is gratifying that the proportion of the coma cases not receiving insulin during terminal coma fell from 26 percent in 1929 to 13 percent in 1935. Of the total deaths in the present series, only 17 percent were actually due to coma. In the remainder, the coma was secondary, or the patient was brought out of coma before death. No data on this point are available for the earlier series of cases.

Of outstanding interest in this present series are two historic cases which illustrate admirably the wonderful results of insulin treatment. One was the first diabetic in a general hospital ever to receive insulin, a few months after its discovery. This patient, a boy of 13, was admitted to the hospital in a critical condition in January 1922, and was expected to survive only a few days. Insulin brought the patient not only through this illness, but through several subsequent attacks of coma and enabled him to grow to manhood. His death eventually was due to a respiratory infection and not to diabetes, for his diabetic condition was well under control. Of equal interest is the first patient to be treated with insulin commercially manufactured in the United States. This patient survived almost to the biblical three score years and ten. Her death at 69 years followed a cerebral

hemorrhage, a common cause of death among persons of that age. The diabetic condition in her case, too, was well under control at the time of her death early this year.

The present survey shows definite progress in the treatment of diabetes, but at the same time, reveals some important deficiencies upon which efforts should be concentrated to effect still further improvement. First of all, the proportion of diabetics in the population who are using insulin regularly is still small, as compared to that in the best clinical practice. A much larger number could use insulin to advantage. Certainly, every diabetic patient should be taught its value in emergencies and should know how to use it. The frequently reported objection, either on the part of the patient or of his family, to his use of insulin, is direct evidence of the need for education on this point. The fear of the hypodermic needle, and its association in the popular mind with habit-forming drugs, are the usual reasons for this objection. It will often require a good deal of patient persuasion by the doctor to overcome these prejudices. The diabetic must be convinced that insulin is not a habit-forming drug, and that no stigma of any kind attaches to its use. He will be the more disposed to listen when he is made to understand that he is threatened with serious complications, which may be avoided by insulin treatment; also, that by its aid he can enjoy a more varied and palatable diet, instead of the rigorously restricted fare to which he will otherwise be limited. No encouragement must be given for the use of so-called insulin substitutes taken by mouth, since repeated tests have proved these to be practically useless. That in some instances diabetics have been forced to go without insulin for lack of the means to pay for it is very regrettable. For poor patients, insulin should be made available free of charge at public expense. Physicians should do their utmost to see that this provision is made where that has not already been done.

The decline in the incidence of diabetic coma, substantial and gratifying as it has been, can be still further extended. Most, possibly all, deaths in diabetic coma are preventable. That they continue to be a frequent event is only another indication of the need for education of the patients. The best and surest means of preventing deaths from diabetic coma is to teach the patient clear and simple rules how to avoid it and what should be done if it occurs. The test of the value of such instruction is the result obtained by a well-known clinic which reports, among 981 deaths of diabetics during the last five years, only 6.1 percent from primary coma, or little more than one third of the proportion discovered in the present study, which covers a fair sample of the diabetic population.

The teaching of these rules regarding coma should be early and thorough. For, it is the recent or ill-trained diabetic who most often falls prey to this condition.

The American Death Rate in 1934

THE death rate in 1934, among close to seventeen million insured wage-earners and their dependents, was lower than ever before; but, in the population at large, the mortality appears to have increased by two and one half percent. This, at least, is what provisional reports show, as they have come to the Metropolitan Life Insurance Company through the courtesy of the health departments of 43 states and the District of Columbia. These states comprise 91 percent of the total population of Continental United States. It is not likely that the facts for the remaining 9 percent of the population will change the picture materially.

Heretofore, when the death rate of this large insured group tended upward, or downward, in any year, the facts for the general population showed a corresponding tendency. Public health officials will naturally wish to determine why 1934 was an exception to this rule. They will want to know whether the rise in mortality was general throughout the United States; and if not, what sections were chiefly affected. They will wish, also, to examine into the possible factors which brought about a higher mortality rate for the country as a whole, in contrast with the reduced rate in the insured industrial population.

The facts show clearly that there are important geographical differences in the health picture of 1934. The most unfavorable showing in the entire country is that for the 9 South Atlantic States, where the death rate rose 7.3 percent as compared with 1933. With the single exception of Maryland, every state in this region recorded an increase last year; and North Carolina registered a rise of 14 percent, the largest of any state in the Union.

The 1934 mortality record of the Mountain States (data for Colorado missing), and for the West North Central States (no data for North Dakota) show that the death rate rose 4.8 percent in each of these regions. Idaho, with a rise of 11 percent, and Missouri, with 8.6 percent, fared the worst in these sections of the country.

Throughout the populous Middle West, in states predominantly agricultural as well as industrial, the 1934 health record compared unfavorably with that of 1933. Every state in the East North Central and West North Central groups showed an increased death rate ranging from 1.9 percent, in Kansas, to 5.7 percent in Illinois, 7.0 percent in Indiana and 8.6 percent in Missouri. It is significant that these two broad regions comprise approximately one third of the population of the country. A small rise of 1.0 percent was recorded for the group of 4 East South Central States, with Mississippi the only one to show improvement over 1933.

For the rest of the country the picture is much brighter. The rate declined slightly in New England

where every state registered a drop. There was no change for the group of 3 Middle Atlantic States, although New York, with more than one tenth of the country's population, recorded a small decline. On the Pacific Coast, California reported a small decline; in Oregon the rates for the 2 years were identical. The figures for Washington have not yet come to hand.

At this writing, only fragmentary data are available to show what specific causes of death were involved in raising the death rate in the states where the more outstanding increases occurred. Preliminary reports from North Carolina, Georgia, Florida, Illinois, Indiana, Ohio, Virginia and Kentucky, where the rises last year ranged from 4.6 percent to 14.0 percent, tell very much the same story. In these states deaths from pneumonia, measles, whooping cough, cardiac diseases and automobile fatalities greatly outnumbered the 1933 totals. Wherever the facts for cancer and cerebral hemorrhage were made available to the Metropolitan, considerable rises are shown. The death rates for all these causes, except cerebral hemorrhage, also increased last year among insured wage-earners; but except for measles and whooping cough there was no appreciable rise among the insured.

From 1931 to 1933 inclusive, three years of increasingly unfavorable business and unemployment conditions, there was nothing in the mortality statistics of the population in general, or of the wage-earning group, to suggest that the vitality of either had been impaired. If, in 1934, as now seems probable, the downward trend was reversed in the former, but continued in the latter, it is in order to hazard a guess or two as to the factors involved.

In the first place, it should be remembered that the Metropolitan Industrial policyholders are substantially an urban group, whereas the general population is approximately one half rural. It may develop, when separate urban and rural mortality statistics become available for 1934, that the mortality increase was confined to the rural population. According to the estimates of the Bureau of the Census, however, the death rate in 86 large cities increased from 11.0 per 1,000 in 1933 to 11.4 in 1934, marking a rise of 3.6 percent.

Second, the answer may lie in the somewhat different age distributions of the general and insured populations. The mortality statistics for the latter relate to deaths of persons 1 to 74 years of age, while those for the former include deaths in the infant as well as the aged population. Early reports from 5 large states point to an increase in infant mortality last year. The relatively unfavorable 1934 mortality showing for the general population may have been due largely to a rise in infant mortality. Later figures may also show higher mortality at the ages over 75 years.

Other explanations suggest themselves. Throughout the years of depression the organization of relief

work has unquestionably ameliorated the effects of unemployment on the health of the people. The whole country has benefited. It is possible, however, that during 1934 relief organizations and health agencies concentrated their efforts on the families of the urban unemployed. If so, living standards of the wage-earning populations of our cities may have been raised last year to a greater extent than obtained in the rural districts and small communities, and this would be reflected in an improvement in the industrial death rate.

Finally, it is necessary to point out that Metropolitan Industrial policyholders benefit greatly from the welfare services supplied by the Company. In 1934, a total of four million visits were made by the Visiting Nurse Service. These nurses not only care for the sick but carry on a vast system of instruction to the well in hygiene and sanitation. This, in turn, prevents much sickness and reduces the seriousness of many cases of illness. It may well be that the better health record of the insured wage-earners in 1934 was due largely to the efficiency of the nursing care they received, supplemented by the Company's educational campaign in which nearly fifty-three million pamphlets on personal hygiene were distributed during the year.

Longevity in the New England States

THE New England States have always held a ranking position among the states of the Union in the excellence of their public health work and in the development of their vital statistics. Hence particular interest attaches to the life tables for the New England States, which we present in this issue, and which show that the average length of life in this area is about the same as for the country as a whole. In weighing this conclusion, it must be kept in mind that three of these six states are highly industrialized, and that even under the most favorable conditions this works to their disadvantage as regards average longevity. These three states are Rhode Island, Connecticut and Massachusetts. In view of this handicap, it is gratifying to find that they nevertheless exhibit very creditable figures for the expectation of life. Only Rhode Island, the most highly industrialized of them all, has, at practically every age of life shown in the table, expectations falling somewhat short of the general average for the United States.

At birth the expectation of life of white males in the State of Rhode Island is 58.06, as against 59.31 in the United States as a whole, a disadvantage of one and one quarter years. At age 15, the corresponding figures are 49.79 years for Rhode Island and 50.46 for the United States as a whole, a margin of just about two thirds of a year against Rhode Island. A somewhat similar situation will be observed in that

Expectation of Life and Mortality Rate per 1,000 at Specified Ages, for White Persons, by Sex. United States and Each of the New England States for the Period 1929-1931*

Age	Males							Females						
	United* States	Maine‡	New‡ Hampshire	Ver-‡ mont	Massachusetts	Rhode‡ Island	Connecticut	United* States	Maine‡	New‡ Hampshire	Ver-‡ mont	Massachusetts	Rhode‡ Island	Connecticut
	Expectation of Life													
0	59.31	58.70	**60.24**	**59.97**	59.29	58.06	**59.77**	62.83	61.85	62.56	62.74	62.63	61.39	**63.3**
1	62.12	**63.07**	**63.72**	**63.42**	**62.37**	61.58	**62.69**	64.99	**65.12**	**65.19**	**65.40**	**65.07**	64.01	**65.8**
2	61.73	**62.64**	**63.34**	**62.86**	**62.00**	61.24	**62.16**	64.55	**64.60**	**64.66**	**64.75**	**64.58**	63.63	**64.9**
3	61.06	**61.97**	**62.65**	**62.14**	**61.30**	60.60	**61.40**	63.85	63.85	**63.95**	**63.98**	63.83	62.90	**64.2**
4	60.29	**61.19**	**61.88**	**61.33**	**60.51**	59.81	**60.61**	63.06	63.05	**63.19**	**63.17**	63.02	62.08	**63.4**
5	59.47	**60.41**	**61.06**	**60.49**	**59.67**	58.97	**59.78**	62.22	62.20	**62.35**	**62.32**	62.20	61.21	**62.9**
10	55.03	**56.00**	**56.62**	**56.06**	**55.24**	54.45	**55.27**	57.70	57.63	**57.85**	**57.74**	**57.73**	56.65	**57.9**
15	50.46	**51.43**	**52.07**	**51.56**	**50.64**	49.79	**50.63**	53.03	52.96	**53.21**	**53.09**	**53.05**	52.02	**53.2**
20	46.07	**47.07**	**47.64**	**47.16**	**46.14**	45.29	**46.16**	48.55	48.55	**48.71**	**48.62**	48.50	47.49	**48.0**
25	41.81	**42.84**	**43.27**	**42.87**	41.76	40.91	41.81	44.25	**44.37**	**44.42**	**44.31**	44.11	43.11	**44.2**
30	37.57	**38.57**	**38.94**	**38.54**	37.41	36.57	37.45	39.99	**40.18**	**40.15**	**40.09**	39.78	38.81	39.8
35	33.36	**34.29**	**34.62**	**34.19**	33.13	32.18	33.09	35.74	**36.02**	**35.94**	**35.86**	35.49	34.47	35.5
40	29.25	**30.09**	**30.31**	**29.91**	28.96	27.95	28.86	31.53	**31.85**	**31.78**	**31.63**	31.23	30.14	31.2
45	25.30	**26.05**	**26.14**	**25.82**	24.94†	24.01	24.84†	27.40	**27.74**	**27.68**	**27.55**	27.07	26.04	27.0
50	21.54	**22.10**	**22.14**	**21.96**	21.13†	20.31	21.08†	23.41	**23.80**	**23.71**	**23.67**	23.09	22.10	23.0
55	17.99	**18.38**	**18.38**	**18.35**	17.58†	16.87	17.68†	19.60	**20.01**	**19.91**	**19.82**	19.31	18.38	19.3
60	14.73	**14.89**	**14.93**	**14.98**	14.34†	13.81	14.57†	16.05	**16.35**	**16.28**	**16.26**	15.79	14.91	15.9
65	11.79	**11.84**	**11.86**	**11.98**	11.45	11.11	11.68†	12.83	**12.96**	**13.03**	**13.09**	12.63	11.88	12.7
70	9.22	9.15	**9.24**	**9.40**	8.92†	8.68	9.20†	9.98	**10.06**	**10.20**	**10.25**	9.89	9.34	9.9
75	7.03	6.90	7.03	**7.15**	6.76†	6.63	**7.08**†	7.58	**7.63**	**7.72**	**7.69**	7.57	7.21	7.5
80	5.27	5.18	**5.35**	5.23	5.00†	5.07	**5.29**†	5.66	**5.68**	**5.80**	**5.71**	**5.71**	5.58	5.6
85	3.94	3.86	**3.95**	3.85	3.63	3.94	3.91	4.22	4.20	**4.62**	4.22	**4.29**	4.19	4.1
90	2.88	2.83	2.77	2.82	2.60	**2.94**	**2.90**	3.11	3.02	**3.66**	3.10	**3.17**	2.87	2.9
	Mortality Rate per 1,000													
0	60.86	84.39	69.87	69.64	65.00	72.69	62.07	48.21	65.00	55.30	55.48	52.60	56.10	48.4
1	9.88	**9.04**	**9.65**	**7.01**	9.98	10.75	**7.54**	8.71	**7.47**	**7.25**	**5.36**	**7.77**	9.71	**6.7**
2	5.33	**5.27**	**4.91**	**4.36**	**4.97**	5.88	**3.89**	4.65	**3.84**	**4.39**	**3.68**	**3.85**	**4.30**	**4.1**
3	3.73	**3.65**	**3.71**	**3.20**	**3.35**	**3.45**	**3.42**	3.30	**3.18**	3.79	**2.92**	**2.98**	**2.83**	**2.9**
4	3.00	3.49	**2.87**	**2.62**	**2.75**	**2.71**	**2.72**	2.55	**2.36**	2.58	**2.38**	2.92	**2.12**	**2.3**
5	2.51	2.99	**2.36**	**2.25**	**2.40**	**2.24**	**2.23**	2.08	**1.87**	**2.00**	**1.91**	2.54	**1.76**	**1.9**
10	1.45	**1.39**	1.51	1.74	1.45	**1.16**	**1.26**	1.09	**1.03**	1.26	1.10	1.12	1.25	**.9**
15	2.10	2.15	**2.00**	2.17	**1.76**	**1.72**	**1.77**	1.63	1.74	**1.54**	1.70	**1.45**	**1.59**	**1.3**
20	3.12	3.24	**2.60**	**2.90**	**2.58**	**2.59**	**2.72**	2.70	3.21	2.72	**2.63**	**2.34**	**2.41**	**2.3**
25	3.66	**3.54**	**3.07**	**3.31**	**3.11**	**3.31**	**3.14**	3.36	3.74	**3.31**	3.48	**2.98**	**3.21**	**2.7**
30	4.12	**3.74**	**3.56**	**3.39**	**3.66**	**3.37**	**3.38**	3.74	4.13	3.81	3.93	**3.56**	**3.59**	**3.0**
35	5.07	**4.40**	**3.87**	**3.96**	**4.75**	**4.23**	**4.29**	4.31	4.68	4.63	**4.27**	**4.08**	**3.66**	**3.8**
40	6.79	**6.07**	**5.08**	**5.54**	**6.42**	6.87	**6.21**	5.32	5.35	5.51	**5.29**	**5.08**	5.39	**5.0**
45	9.25	**7.74**	**7.19**	**8.20**	**8.83**	10.17	**9.10**	6.99	7.24	7.08	7.83	7.01	7.76	**6.9**
50	12.72	**10.88**	**10.30**	**11.91**	12.87	14.24	13.94†	9.55	9.84	9.73	9.62	10.02	10.91	10.2
55	18.19	**15.26**	**15.67**	**16.74**	18.66	21.36	20.53	13.82	**12.89**	**12.99**	**13.14**	14.20	15.50	15.4
60	26.35	**24.06**	**23.73**	**24.72**	27.67†	31.58	27.60	20.63	**18.14**	**19.45**	20.78	21.55	23.86	21.8
65	38.70	**36.84**	**37.56**	**37.86**	40.69	44.27	40.20†	31.34	**29.45**	**31.17**	31.60	33.38	38.67	**31.2**
70	57.33	**55.75**	**56.30**	**55.86**	59.89	63.57	59.61†	48.36	**47.57**	**46.77**	**44.78**	50.64	57.27	49.4
75	85.75	87.79	87.33	**80.51**	89.67	95.38	**85.34**	75.27	**74.18**	**71.79**	**71.63**	76.99	86.79	76.4
80	128.38	131.38	**126.75**	**125.95**	134.07†	140.96	**125.80**†	116.06	**114.59**	118.62	**113.70**	**116.00**	123.16	**114.1**
85	183.11	187.12	**177.44**	187.35	197.14†	187.49	184.53†	168.93	**167.40**	**163.94**	**167.71**	**166.52**	**164.28**	169.6
90	255.13	261.32	258.84	262.44	282.93†	**250.43**	258.20†	236.62	239.28	**203.02**	238.06	**231.89**	244.55	249.2

NOTE—Figures in boldface indicate mortality more favorable than in United States as a whole.
*Death Registration States of 1929.
†Indicates retrogression from the corresponding value according to the Foudray table for 1919-1920.
‡Corresponding life tables for 1919-1920 were not computed.

part of the accompanying table which relates to white females.

In the other two rather highly industrialized states, namely Connecticut and Massachusetts, conditions are much more favorable. Up to and including age 20, most of the figures in the columns relating to these two states show an excess in expectation of life as compared with the corresponding figures for the United States. At age 0, the State of Massachusetts has practically the same expectations of life both for white males and white females as the United States as a whole, namely 59.29 and 62.63, as against 59.31 and 62.83. The State of Connecticut has figures very closely resembling those of Massachusetts, especially from age 2 forward, with only a very slight advantage in favor of Connecticut. So far as industrialization is concerned, the two states are almost on a level, the percent of population engaged in manufacturing and industrial pursuits being 18 percent for Massachusetts and 19 percent for Connecticut. The corresponding figure for Rhode Island is 22 percent.

The remaining New England States, Maine, New Hampshire and Vermont, show at most ages of life a margin of superiority in expectation of life as compared with the United States as a whole. This is clearly shown in the accompanying table by the fact that the figures in these columns are for the greater part set in heavy type, indicating that they are above average.

That part of the table which gives age-specific mortalities repeats in broad outline the points that have been mentioned above regarding the expectation of life, with the usual distinction that the figure for expectation of life reflects not only conditions at a specific age but conditions at a given age and beyond that age to the end of life, whereas the mortalities relate specifically to each separate age of life.

As in former articles on regional collections of life tables, we may briefly consider also the trend that appears when comparison is made between the figures of the table now presented and the corresponding figures for the preceding official table, that for 1919 to 1920. Unfortunately this comparison can be made only for the States of Massachusetts and Connecticut, because the earlier table does not cover the other New England States. But for these two states, Massachusetts and Connecticut, it will be seen from the daggers appended to the corresponding figures in the table, that among white males the expectation of life has actually suffered a setback for nearly all ages from 45 years up. The situation for females is more favorable there being a setback shown only at age 75. A somewhat similar picture is presented by the figures for the mortality, with the usual modification referred to above.

Taken as a whole, the figures for these six New England States are very favorable, especially for those that are not so highly industrialized. By this time, we have become famil-

iar with the fact that at the time of the last census the mortality throughout the United States was very favorable. The tables shown herewith make it clear that the New England States have secured their proper share in this generally gratifying state of affairs. As our readers know from previous articles, the death rates throughout the Union have, in the years since the census, been becoming more and more favorable, so that the figures for the last census year do not quite fully reflect the very advantageous position which longevity has reached.

Health Record for April 1935

NINETEEN THIRTY-FIVE is making an unprecedented record for low mortality in the wage-earning population, with the cumulative death rate at the end of April showing a reduction of 3 percent as compared with the first four months of 1934. As last year registered the minimum mortality rate of all time in this important cross-section of the population, it is obvious that health conditions are being maintained at a very high level among these seventeen millions of people.

The improvement over 1934 has not, however, been general throughout the United States, nor has it extended to Metropolitan policyholders in Canada. Among the insured who live in the Pacific Coast and Mountain States the 1935 cumulative mortality rate is higher than last year's figure by 3.5 percent, and in Canada a rise of 7.3 percent is shown. Canadian policyholders this year—and more particularly those in the Province of Quebec—have suffered sharply increased mortality from a number of causes of death, more particularly from influenza, pneumonia, measles, cancer, coronary disease and accidents.

The more important individual diseases to show materially lower year-to-date death rates than for the first four months of last year are tuberculosis, cerebral hemorrhage, heart disease, pneumonia and chronic nephritis. Several other causes, for example, accidents, automobile fatalities and suicides have registered smaller declines. The diphtheria mortality rate is at last year's low level; and it is particularly gratifying to note that the long time downward swing in tuberculosis mortality is continuing undiminished in intensity.

The death rate in the general population of the large cities of the United States for the month of April was 12.2 per 1,000 estimated population as compared with 12.4 in March 1935 and 12.3 in April 1934. Comparison with March shows more sickness in April from measles, smallpox and typhoid fever, together with fewer cases of diphtheria, influenza, poliomyelitis and scarlet fever. As compared with April 1934, there was more sickness from measles, scarlet fever and smallpox, but fewer cases of other controllable diseases.

The following table shows the mortality among Industrial policyholders for April 1935; March 1935, and April 1934, together with the cumulative rates for the first four months of each year.

METROPOLITAN LIFE INSURANCE COMPANY

Death Rates per 100,000 for Principal Causes. Weekly Premium-Paying Business in Industrial Department. All Ages (Annual Basis).*

MONTHS OF APRIL 1935; MARCH 1935, AND APRIL 1934.

CAUSES OF DEATH	ANNUAL RATE PER 100,000 LIVES EXPOSED*				
	April 1935	March 1935	April 1934	Cumulative January-April	
				1935	1934
TOTAL—ALL CAUSES	901.8	929.1	941.0	931.9	960.8
Typhoid fever	1.0	.4	1.4	.5	1.0
Measles	5.2	3.9	7.0	3.3	4.4
Scarlet fever	4.2	3.3	3.9	3.6	3.8
Whooping cough	3.0	3.0	3.6	3.2	3.9
Diphtheria	1.9	1.9	1.2	2.4	2.4
Influenza	17.4	28.7	17.2	28.7	19.5
Tuberculosis (all forms)	62.2	59.8	63.3	60.0	62.6
Tuberculosis of respiratory system	55.8	53.7	55.3	54.4	55.2
Syphilis, locomotor ataxia and general paralysis of the insane	10.3	10.8	12.2	11.4	12.6
Cancer (all forms)	94.0	97.7	93.2	95.8	95.8
Diabetes mellitus	26.8	26.6	28.3	27.8	28.0
Cerebral hemorrhage; apoplexy	66.5	65.0	70.8	67.3	71.8
Diseases of heart†	169.9	177.4	173.8	179.6	189.9
Diseases of the coronary arteries and angina pectoris	33.3	37.0	31.2	35.3	32.1
Pneumonia (all forms)	90.3	97.1	105.3	99.4	102.9
Diarrhea and enteritis	6.5	6.7	5.5	6.0	6.7
Appendicitis	12.0	11.9	12.1	11.4	12.3
Chronic nephritis (Bright's disease)	63.3	63.7	73.8	66.1	73.3
Puerperal state—Total	8.5	9.2	9.6	9.7	9.8
Suicides	8.6	9.2	9.3	8.5	9.5
Homicides	4.9	5.4	5.4	5.6	5.5
Accidents—Total	48.2	51.8	47.0	51.8	52.9
Automobile accidents	16.1	17.8	17.1	18.1	19.2
All other diseases and conditions	163.7	158.7	165.8	154.6	159.8

*The rates for 1935 are subject to slight correction, since they are based on provisional estimates of lives exposed to risk.

†Excludes pericarditis, acute endocarditis and acute myocarditis.

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STATISTICAL BULLETIN,
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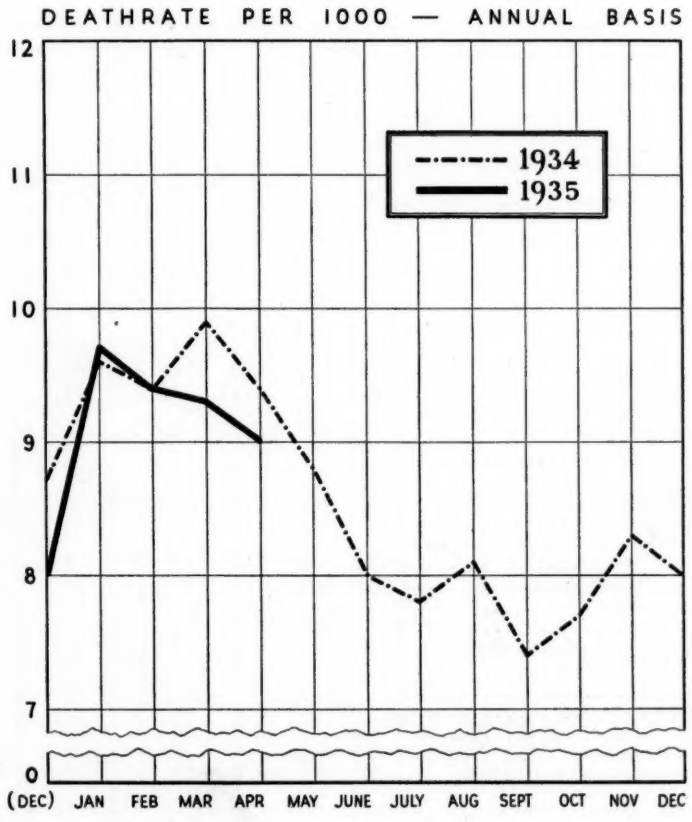
DEATHRATES FROM ALL CAUSES

METROPOLITAN LIFE INSURANCE CO. – INDUSTRIAL DEP'T.
WEEKLY PREMIUM PAYING BUSINESS — TOTAL PERSONS



1934	9.6	9.4	9.9	9.4	8.8	8.0	7.8	8.1	7.4	7.7	8.3	8.0
1935*	9.7	9.4	9.3	9.0								

* *Rates for 1935 are provisional*

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